WE CLAIM:

1. A method for automatically testing audio channels of an audio device, comprising:

playing a first digital format tone from a first audio sound card;

converting the first digital format tone from a digit format to an analog format;

looping the analog format tone through a first audio channel for recording the analog format tone;

recording the analog format tone;

converting the recorded analog format tone to a recorded digital format tone;

comparing the recorded digital format tone to the first digital format tone; and

if the recorded digital format tone is substantially similar to the first digital format tone, designating the first audio sound card as passing an audio test.

2. The method of Claim 1, whereby if the recorded digital format tone is substantially similar to the first digital format tone, designating the first audio channel as passing an audio test.

3. The method of Claim 1, further comprising playing the first digital format tone at a known frequency.

4. The method of Claim 1, further comprising playing the first digital format tone at a known volume intensity.

5. The method of Claim 1, prior to playing the first digital format tone, generating the first digital format tone via a frequency synthesizer.

6. The method of Claim 1, prior to playing the first digital format tone, generating the first digital format tone from a tone wave table.

7. The method of Claim 1, prior to playing the first digital format tone, generating the first digital format tone from a frequency modulation (FM) synthesizer.

8. The method of Claim 1, after converting the recorded analog format tone to a recorded digital format tone, converting the recorded digital format tone from a time domain to a frequency domain.

9. The method of Claim 8, whereby converting the recorded digital format tone from a time domain to a frequency domain includes converting the recorded digital tone from a time domain to a frequency domain via a Fast Fourier Transformation (FFT).

10. The method of Claim 8, further comprising comparing a frequency of the recorded digital format tone with a known frequency of the first digital format tone.

11. The method of Claim 10, whereby the recorded digital format tone is substantially similar to the first recorded digital format tone if the frequency of the recorded digital format tone is the same as the known frequency of the first digital format tone.

12. The method of Claim 8, further comprising comparing a volume intensity of the recorded digital format tone with a known volume intensity of the first digital format tone.

13. The method of Claim 12, whereby the recorded digital format tone is substantially similar to the first recorded digital format tone if the volume intensity of

the recorded digital format tone is the same as the known volume intensity of the first digital format tone.

14. The method of Claim 8, after converting the recorded digital format tone from a time domain to a frequency domain, further comprising:

calculating a DC offset value for the recorded digital format tone;

comparing the calculated DC offset value to a known acceptable DC offset value to determine whether an unacceptable level of DC offset is produced when the first digital format tone is converted to the analog format tone and is passed through the first audio channel; and

whereby if the calculated DC offset value is unacceptable, designating the first audio channel as failing the audio test.

15. The method of Claim 8, after converting the recorded digital format tone from a time domain to a frequency domain, further comprising:

calculating a signal-to-noise ratio (SNR) value;

comparing the calculated SNR value to a known acceptable SNR value to determine whether an unacceptable level of background noise is recorded with the recorded digital format tone after the first digital format tone is passed through the first audio channel in an audio format; and

whereby if the calculated SNR value is unacceptable, designating the first audio channel as failing the audio test.

16. The method of Claim 8, after converting the recorded digital format tone from a time domain to a frequency domain, further comprising:

calculating a total harmonic distortion plus noise (THD+N) for the recorded digital format tone to determine an audio clarity measure associated with the first audio channel;

comparing the THD+N value to a known acceptable THD+N value; and

if the calculated THD+N value exceeds an acceptable THD+N value, designating the first audio channel as failing the audio test.

17. A method for automatically testing a record gain associated with an audio channel of an audio device, comprising:

playing a first digital format tone at first and second volume intensities;

converting the first digital format tone at each of the first and second volume intensities from a digit format to an analog format;

looping the analog format tone at each of the first and second volume intensities through a first audio channel and recording the analog format tone at each of the first and second volume intensities;

converting the recorded analog format tone at each of the first and second volume intensities to a recorded digital format tone for each of the first and second volume intensities;

converting the recorded digital format tone for each of the first and second volume intensities from a time domain to a frequency domain via a Fast Fourier Transformation (FFT)

calculating a first record gain value for the recorded digital format tone at the first volume intensity;

calculating a second record gain value for the recorded digital format tone at the second volume intensity;

if the first record gain value varies from the second record gain value in proportion to a variation between the first volume intensity and the second volume intensity, designating the first audio channel as passing a record gain test.

18. A method for automatically testing an audio mute function associated with audio channels of an audio device, comprising:

recording a first tone played through a first stereo output channel;

muting a second stereo output channel associated with the first stereo output channel;

while recording a first tone played through a first stereo output channel, recording any sound passing through the second stereo output channel;

analyzing any sound recorded from the second stereo output channel to determine whether the any sound is the same as the first tone played through the first stereo output channel;

if the any sound recorded from the second stereo output channel is the same as the first tone played through the first stereo output channel, designating the mute function applied to the second stereo output channel as failing the audio mute function test.

19. A method for automatically testing a record function associated with an audio channel of an audio device across varying frequencies, comprising:

playing a first digital format tone at a first frequency;

converting the first digital format tone from a digit format to an analog format;

looping the analog format tone through a first audio channel and recording the analog format tone;

converting the recorded analog format tone to a recorded digital format tone;

converting the recorded digital format tone from a time domain to a frequency domain via a Fast Fourier Transformation (FFT)

comparing a frequency of the recorded digital format tone with the first frequency;

if the frequency of the recorded digital format tone is the same as the first frequency, designating the first audio channel as passing a record test at a known frequency.

20. The method of Claim 19, further comprising repeating the steps of Claim 19 whereby the first digital format tone is played at a second frequency in order to test recording the first digital format tone over the first audio channel at varying frequencies.